

Quantitative Usage Analysis for Coumaphos

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Coumaphos is an organophosphate insecticide used to control fleas, ticks, and mites in livestock, primarily cattle. The tradename for Coumaphos in the US is *Co-Ral*® and formulations are available as emulsifiable concentrates, granules, flowable, bulkdusts, and wettable powders.

Based upon the available EPA data and other pesticide usage survey information for Coumaphos on all sites for the years 1990 through 1999, an annual estimate of Coumaphos' total usage on all sites averaged 71,000 pounds of active ingredient (a.i.) on an average of 6.1 million animals treated. Cattle and other livestock may be treated with slightly more than one tenth of a pound per year. Coumaphos' largest market in terms of total pounds of active ingredient use is allocated to beef and dairy cattle (83%). Of this 83%, beef cattle account for 95% of the Coumaphos cattle usage with dairy accounting for the remaining 5% of cattle usage. The remaining total usage is allocated to other livestock including: sheep, swine, horses and bees (16%). Usage of Coumaphos has declined by nearly 50% over the last 10 years. Sales have generally declined over the last 10 years although an increase in sales in 1999 due to the Checkmite® beestrip miticide for the control of the bee pest varroa mite has buoyed sales revenues.

Site	Livestock (millions)	Animals Treated (millions)		Animals Treated (% of US Inventory)		LB AI Applied (000/yr)		Average Application Rate (Likely Averages)			Application Rates Likely Minimums			States of Most Usage
		Wtd Avg	Est Max	Wtd Avg	Est Max	Wtd Avg	Est Max	lb ai/ hd/yr	#appl / yr	lb ai/ hd/appl	lb ai/hd/yr	# app/yr	lb ai/hd/ap pl	
Cattle:	99													
Dip vats	99	2.0	3.0	2.0%	3%	26	65	0.013	1.0	0.0130	0.022	1.0	0.0217	
Sprays	99	0.4	2.4	0.4%	2%	13	36	0.030	1.5	0.0200	0.015	1.5	0.0100	
Dust bag	99	2.1	16.0	2.2%	16%	16	40	0.008	60	0.0001	0.003	40	0.0001	
Shaker can	99	0.3	3.0	0.3%	3%	2	8	0.007	7	0.0010	0.003	4	0.0006	
Backrubbers	99	0.2	1.5	0.2%	2%	2	8	0.010	60	0.0002	0.005	40	0.0001	
Total Cattle [1]	99	5.1	19.7	5.1%	20%	59	156	0.012 [2]			0.008 [3]			TX AZ CO
Other livestock [4]	76	1.0	2.6	1.3%	3%	12	26	0.012			0.010			
Total livestock [1]	175	6.1	22.0	3.5%	13%	71	127							

COLUMN HEADINGS

Wtd Avg = Weighted average--the most recent years and more reliable data are weighted more heavily.

Est Max = Estimated maximum, which is estimated from available data.

Average application rates are calculated from the weighted averages.

NOTES ON TABLE DATA

Usage data primarily covers 1990 - 1999. Calculations of the above numbers may not appear to agree because they are displayed as rounded

[1] The sum of the likely maximums is improbable since it is unlikely that ALL uses would be at their likely maximum at the same time. The total value is not additive as it is calculated based on available data.

[2] The average of the above likely average application rates/animals/year.

[3] The average of the above likely minimum application rates/animals/year.

[4] Other livestock include: swine—58 million; sheep—11 million; goats—3 million; and horses—2 million.

SOURCES: US Census of Agriculture; State Usage Surveys from TX, KS, NY, WY, and NV ; State use recommendations; USDA, NASS, 2000; EPA ata, 1990-99